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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,493	08/27/2003	Declan McDonagh	5646-108	5891
20792	7590	08/23/2005	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC			SHINGLETON, MICHAEL B	
PO BOX 37428			ART UNIT	
RALEIGH, NC 27627			PAPER NUMBER	

2817

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,493

Applicant(s)

MCDONAGH ET AL.

Examiner

Michael B. Shingleton

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 10, 14, 16, 17 and 21 is/are rejected.
- 7) ☒ Claim(s) 3-7, 9, 11-13, 15 and 18-20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 8, 10, 14, 16, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon et al. 6,114,920 (Moon).

Figure 3 and the relevant text of Moon discloses a phase locked loop pll and method of operating a pll that includes a "controlled oscillator" i.e. VCO 308 that is operative to provide an oscillation signal. The vco 308 is controlled by the voltage V_{LF} . The phase/frequency comparator 302 forms in part the "oscillator control signal generator circuit" that causes the vco control voltage to be generated in the conventional manner. F_{IN} for the reference "clock" signal (Note below.). The state machine 316 in part forms a "transfer function control circuit" that during the "auto-trim phase" transitions the operation ("operative to transition operation") from one transfer function to a second transfer function based in part of the vco control voltage V_{LF} i.e. the "voltage range criterion for the oscillator control voltage." Because the Moon reference has all the claimed structure, the Moon reference is fully capable of performing the recited functional language set forth in claims like claim 8. A succession of changes in F_{IN} results in a succession of changes in the "transfer functions" of the VCO in Moon. The transfer function control circuit also includes the means that controls the switches SW1-3 so that it enables "closed loop" operation both during auto-trim phase and normal phase operation. Note that since the F_{OSC} signal is feedback during the "auto-trim phase" even though SW1 is open this is considered a "closed loop" given the ordinary meaning of the term. For example should the F_{IN} signal be one value the device of Moon is fully capable of first setting the transfer function during the auto-trim mode and then transferring to the normal mode, and should the signal F_{IN} be changed to a different value later the device of is fully capable of first setting the transfer function during the auto-trim mode and then transferring to the normal mode. Thus closed loop operation is achieved during each normal mode which results in

closed loop operation that includes “the oscillator control signal generator circuit and the controlled oscillator circuit upon each selection of the succession of transfer functions”.

Moon is silent on calling the oscillation signal F_{OSC} a “clock signal”, however, column 1 around line 24 recognizes that the pll is widely used in “many types of measurement, microprocessor, and communication applications”, and the paragraph bridging columns 6 and 7 sets forth one of these conventional uses for an oscillator, namely that an oscillator is used as the clock in chip based circuits. One chip-based circuit is a microprocessor. Also note that the oscillator of Figure 3 of Moon is a component of a larger system.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the oscillator of Moon shown in Figure 3 as a “clock” in a chip circuit system because, as the Moon reference is silent on the exact use of the oscillator of Figure 3, one of ordinary skill in the art would have been motivated to utilize the oscillator of Figure 3 of Moon in any art recognized equivalent system that utilizes an oscillator as a clock such as a chip based circuit system as taught by Moon.

Allowable Subject Matter

Claims 3-7, 9, 11-13, 15 and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed 6-10-2005 have been fully considered but they are not persuasive. Applicant argues that the transfer control circuit and the controlled oscillator circuit are “both” responsive to the oscillator control signal which appears that applicant is alleging that the prior art does not have such a feature. The examiner respectfully disagrees for the above rejection makes it clear that the transfer control circuit and the controlled oscillator circuit are “both” responsive to the oscillator control signal. Applicant also discusses the without a “calibration” or “auto-trim” operation, yet these functions do not appear at least in claim 1 and applicant has not pointed out which claim this is part of. The claims just do not require that the transfer control circuit and the controlled oscillator circuit are “both” responsive to the oscillator control signal at the same time.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

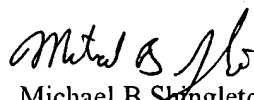
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is (571) 272-1770.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal, can be reached on (571)272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 and after July 15, 2005 the fax number will be 571-273-8300. Note that old fax number (703-872-9306) will be service until September 15, 2005.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MBS
August 12, 2005


Michael B. Shingleton
Primary Examiner
Group Art Unit 2817